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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,534	06/27/2001	Jeong Hyun Kim	8733.469.00	3209

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EXAMINER	
TON, MINH TOAN T	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/891,534	KIM ET AL.
	Examiner	Art Unit
	Toan Ton	2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8-19 and 22-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8-19 and 22-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claim Rejections - 35 USC § 103

1. Claims 1, 3-6, 8-19 and 22-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al (US 6507379)

Yokoyama discloses a liquid crystal display device comprising: a liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates; an organic EL element disposed outside the surface of one of the substrates. See at least Figure 4.

Yokoyama discloses the organic EL element comprising a dielectric multi-layer film 121, a transparent electrode 123, a reflecting electrode 126, a hole transport layer 124, an organic luminescent layer 125.

The limitations not explicitly disclosed by Yokoyama are the use of thin film transistors, the substrates performing polarization function, the first substrate in direct contact with the light emitting structure.

The use of thin film transistors is common and known in the art for several advantages such as cross-talk reduction. Therefore, it would have been obvious to one of ordinary skill in the art to employ thin film transistors for advantages such as cross-talk reduction.

Yokoyama discloses the device comprising a polarizer disposed on each of the substrates. It is known and a common goal in the art to minimize components, thus resulting in several advantages such as a thinner display, which is accomplished by eliminating extra layers. Forming a substrate and a polarizer as a single layer that perform the functions of both with only one layer. Therefore, it would have been obvious to one having ordinary skill in the art to combine the substrate and the polarizer into a single layer (that performs the functions of both) for several advantages such as thinner display.

It has been known in the art that gap(s) existing between layers yields disadvantages such as parallax effect, and thus it has been known in the art to art to minimize or eliminate such gap. Therefore, it would have been obvious to one of ordinary skill in the art to employ the substrate of the LCD panel in direct contact with the light emitting structure for advantages such as reducing parallax effect.

The use of an organic material (e.g., polycarbonate, polyimide) for the substrate is common and known in the art for several advantages such as high flexibility, lighter-device. Therefore, it would have been obvious to one having ordinary skill in the art to employ an organic material (e.g., polycarbonate, polyimide) for the substrate for several advantages such as high flexibility, lighter-device.

The use of color filters is common and known for achieving a color display device. Therefore, it would have been obvious to one having ordinary skill in the art to employ color filters for achieving a color display device.

The use of a black matrix is common and known for advantages such as good resolution. Therefore, it would have been obvious to one having ordinary skill in the art to employ a black matrix for advantages such as good resolution.

The use of other light emitting structures such as LED is an obvious (i.e., not distinct) variation to one of ordinary skill in the art.

2. Claims 1, 3-6, 8-19 and 22-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okibayashi et al (US 5504599) in view of Yokoyama et al (US 6507309).

Okibayashi discloses a liquid crystal display device: a liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates; an EL element disposed outside the surface of one of the substrates. See at least Figures 1(1) and 1(2).

Okibayashi discloses the substrates comprising materials such as high molecular compound film.

The limitations not disclosed by Okibayashi are thin film transistors, organic EL element and the substrates performing polarization function.

Per the use of thin film transistors, see detailed explanations of above.

EL devices employing inorganic materials yield several disadvantages such as high driving voltages (see col. 1, lines 47-57 of Yokoyama). Therefore, it would have been obvious to one of ordinary skill in the art to employ organic EL element for advantages such as low driving voltages.

The use of a polarizer is common and known in the art for advantages such as high contrast. It is known and a common goal in the art to minimize components, thus resulting in several advantages such as a thinner display, which is accomplished by eliminating extra layers. Forming a substrate and a polarizer as a single layer that perform the functions of both with only one layer. Therefore, it would have been obvious to one having ordinary skill in the art to combine the substrate and the polarizer into a single layer (that performs the functions of both) for several advantages such as thinner display.

Per "direct contact", see detailed explanations above.

Per the use of a black matrix, see detailed explanations above.

Per the use of the use of color filters, see detailed explanations above.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

4. Applicant's arguments filed 07-07-03 have been fully considered but they are not persuasive.

Applicant argues that neither reference discloses the substrates performing polarization function. It is known and a common goal in the art to minimize components, thus resulting in several advantages such as a thinner display, which is accomplished by eliminating extra layers. Forming a substrate and a polarizer as a single layer that perform the functions of both with only one layer. Therefore, it would have been obvious to one having ordinary skill in the art to

combine the substrate and the polarizer into a single layer (that performs the functions of both) for several advantages such as thinner display.

Applicant argues neither reference discloses the first substrate in direct contact with the light emitting structure (new limitations). See detailed explanations pertaining to this argument above.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (703) 305-3489. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

September 22, 2003

TOAN TON
PRIMARY EXAMINER